

FIG. 1 is a block diagram of a system for processing a gas stream.

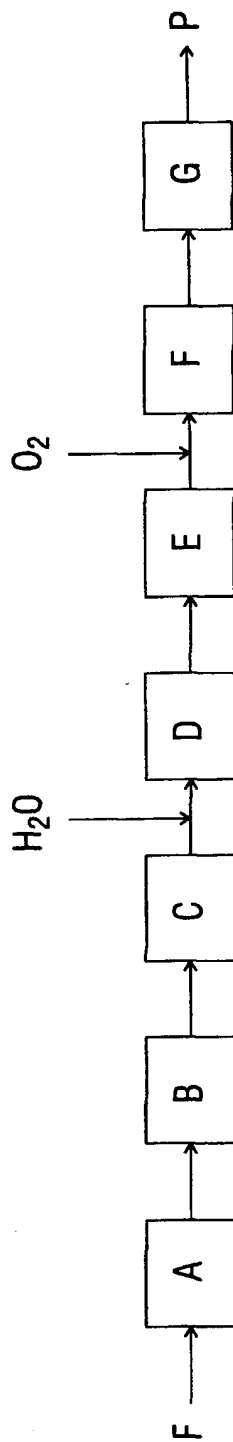


FIG. 1

FIG. 2 is a schematic diagram of a system 100 for processing a material 102. The system 100 includes a feed 104, a reactor 106, a separator 108, and a product stream 110. The feed 104 is a mixture of a solid 134 and a liquid 136. The solid 134 is a granular material, and the liquid 136 is a liquid. The feed 104 enters the reactor 106 through a feed inlet 104. The reactor 106 is a vertical vessel with a stirrer 110. The reactor 106 is divided into three sections: a top section 132, a middle section 130, and a bottom section 136. The top section 132 is a stirred tank reactor, the middle section 130 is a distillation column, and the bottom section 136 is a reboiler. The reactor 106 is connected to a separator 108 through a line 112. The separator 108 is a vertical vessel with a liquid outlet 114 and a gas outlet 116. The liquid outlet 114 is connected to a product stream 110. The gas outlet 116 is connected to a condenser 118. The condenser 118 is a horizontal vessel with a cooling jacket 120. The condenser 118 is connected to a reboiler 122. The reboiler 122 is a vertical vessel with a heating jacket 124. The reboiler 122 is connected to a feed 104. The feed 104 is a mixture of a solid 134 and a liquid 136. The solid 134 is a granular material, and the liquid 136 is a liquid. The feed 104 enters the reactor 106 through a feed inlet 104. The reactor 106 is a vertical vessel with a stirrer 110. The reactor 106 is divided into three sections: a top section 132, a middle section 130, and a bottom section 136. The top section 132 is a stirred tank reactor, the middle section 130 is a distillation column, and the bottom section 136 is a reboiler. The reactor 106 is connected to a separator 108 through a line 112. The separator 108 is a vertical vessel with a liquid outlet 114 and a gas outlet 116. The liquid outlet 114 is connected to a product stream 110. The gas outlet 116 is connected to a condenser 118. The condenser 118 is a horizontal vessel with a cooling jacket 120. The condenser 118 is connected to a reboiler 122. The reboiler 122 is a vertical vessel with a heating jacket 124. The reboiler 122 is connected to a feed 104.

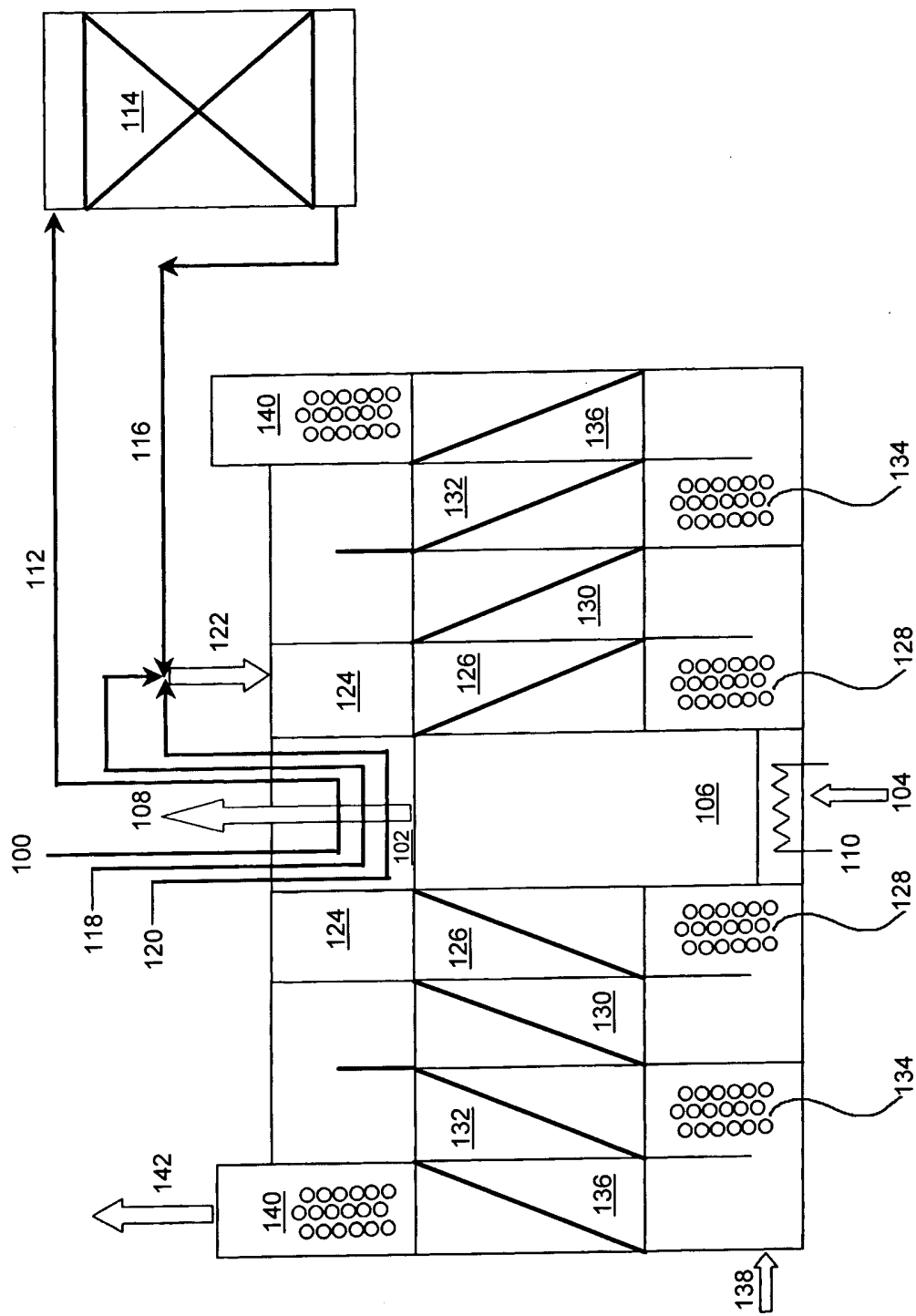


FIG. 2

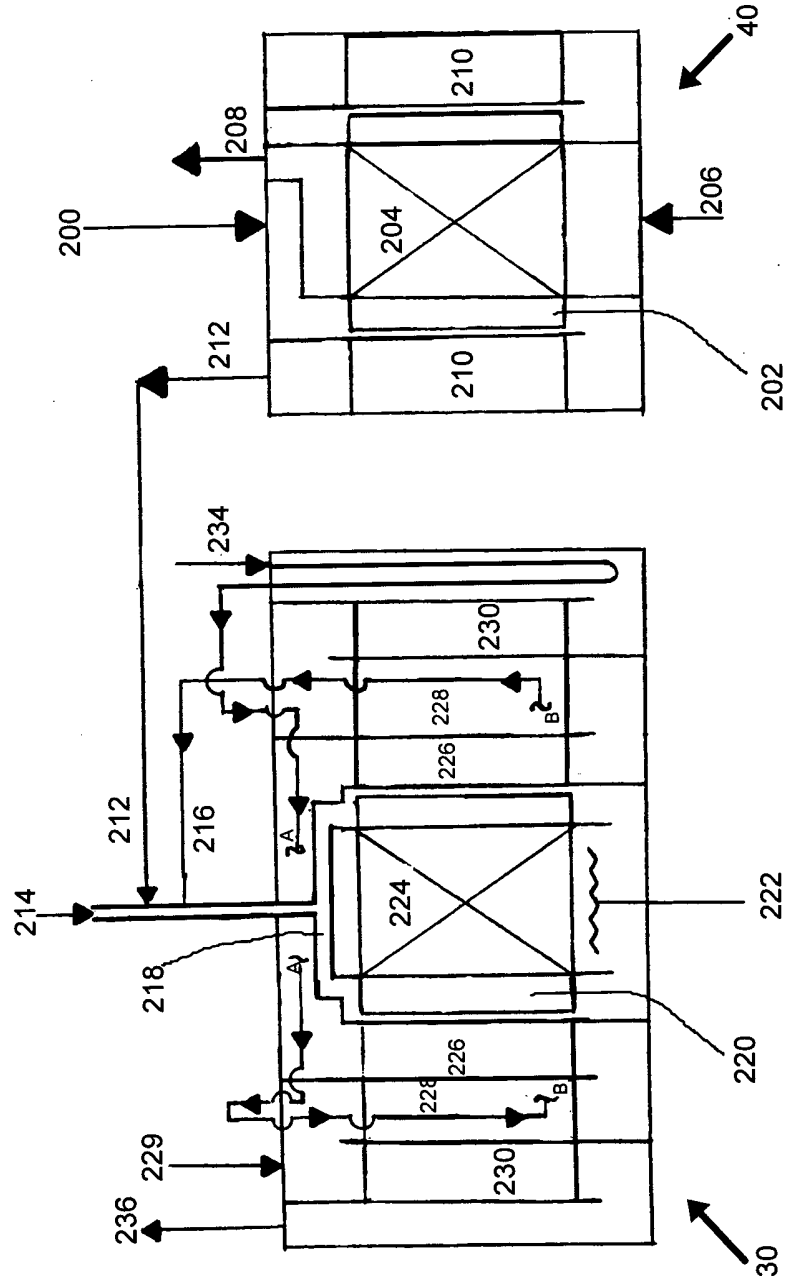


FIG. 3